DETAILED ACTION

Information Disclosure Statement

1. The IDS submitted 3/1/2010 is identical to the previously considered IDS submitted 10/3/2005. All previously considered references have been lined through, all non-lined through references have now been considered.

Election/Restrictions

2. Claims 97, 98, 100-107, 109 and 110 as amended are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the instant claims as amended are directed to processes employing a zeolite N material while the applicant has elected without traverse claims directed to the Zeolite N material itself.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 97, 98, 100-107, 109 and 110 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 91-96, 99, 108 and 111-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen et al. (Acta Chemica Scandinavica, 1997, 51, pp. 969-973) in view of Acara (US 3414602).

In regard to claims 91 and 114-115, Christensen discloses a zeolite N material described by the formula $K_{2.4}Al_2Si_2O_8Cl_{0.4}$ H_2O (p. 969), which when rewritten in the format required by the instant claims is $K_{12}(Al_1Si_1)_{10}O_{40}Cl_2$ $5H_2O$. It is also taught that zeolite N may be produced with the composition $K_{2.7}Al_2Si_{2.54}O_9Cl_{0.7}$ $0.55H_2O$ (p. 969), which rewritten in the format required by the instant claims is $K_{12}(Al_{0.88}Si_{1.13})_{10}O_{40}Cl_{3.1}$

$2.44H_2O$. Christensen fails to expressly disclose a material that meets the compositional requirements of the instant claims including that when a=0, b=1, c=1, d=0 and X=Cl M is not selected to be K.

Acara discloses that zeolite N materials may be produced with Si:Al ratios other than 1:1 (column 3, line 51).

It would have been obvious to one of ordinary skill in the art at the time of the invention to produce a zeolite N material of the type disclosed by Christensen where b and/or c are not selected to be 1. Such a modification would have been motivated by the teaching in Christensen that zeolite N type materials do not require that b and c are 1 and the disclosure in Acara that zeolite N materials may be produced where the c/b ratio is not 1.

In regard to claims 92-96, 99 and 108, the material suggested by Christensen and Acara would be the same as the material required by the instant claims, and it would therefore necessarily follow that the material would exhibit the same properties. Similarities may be seen in the x-ray diffraction pattern in figure 3b in Christensen.

In regard to claims 111-113, Christensen discloses a zeolite N material with the composition $K_{2.7}Al_2Si_{2.54}O_9Cl_{0.7}$ $0.55H_2O$ (p. 969), which rewritten in the format required by the instant claims is $K_{12}(Al_{0.88}Si_{1.13})_{10}O_{40}Cl_{3.1}$ $2.44H_2O$. The c/b ratio in this material is 1.28.

It would have been obvious to one of ordinary skill in the art at the time of the invention to produce a zeolite N material of the general type disclosed by Christensen with a c/b ratio in the range required by the instant claims. This modification would be

motivated by the teaching in Christensen that zeolite N material may have a c/b ratio of 1.28.

Response to Arguments

7. Applicant's arguments with respect to claims 91-96, 99, 108 and 111-115 have been considered but are moot in view of the new ground(s) of rejection.

The new grounds of rejection was necessitated by the amendment to independent claim 91 requiring that when a=0, b=1, c=1, d=0 and X=Cl that M can not be K.

8. Applicant's arguments, see page 6, filed 3/1/2010, with respect to the rejections of claims 91-115 under 35 USC 101 and 112, second paragraph have been fully considered and are persuasive. The instant rejection of claims 91-115 has been withdrawn.

Applicant's amendments to the instant claims have overcome the rejections under 35 USC 101 and 35 USC 112, second paragraph.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. JOHNSON whose telephone number is (571)270-3584. The examiner can normally be reached on Monday-Friday 9:00 AM to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M Johnson/ /David M Brunsman/

Examiner, Art Unit 1793 Primary Examiner, Art Unit 1793

February 7, 2011

/Melvin Curtis Mayes/

Supervisory Patent Examiner, Art Unit 1732